

CLAIMS

I/We claim:

- [c1] 1. A method for managing communications from a user interface, the method comprising:
- receiving user input to configure a telephony service provider system (TSPS), wherein configuration includes associating a handling method with each one of multiple call handling codes, wherein the handling method directs the TSPS in handling a call;
 - receiving user input to a contact management system associating at least some of multiple contacts stored in a contact management system database with one of the handling codes; and
 - receiving user input when a call is received that directs the TSPS how to handle a call, including contradicting a handling code previously associated with a contact, and wherein the TSPS interfaces with the contact management system and uses data from the contact management system database to handle calls.
- [c2] 2. The method of claim 1, wherein handling calls comprises:
- routing calls to a previously specified location, including,
 - a phone number;
 - an interactive voice response system (IVR); and
 - a user computer, including displaying a notification window that displays at least one item selected from a group comprising a caller number, a caller name, and at least one forwarding button the user selects to forward the call to a number.

[c3] 3. The method of claim 1, further comprising providing a notification window having an open contact button to request display of information associated with the caller from the contact management system.

[c4] 4. The method of claim 1, further comprising displaying a notification window, including a display of information associated with the caller from the contact management system.

[c5] 5. The method of claim 3, wherein the information includes:
email messages sent to the caller;
and email messages received from the caller;
calendar events that include the caller; and
documents that reference the caller.

[c6] 6. The method of claim 5, wherein the email messages, calendar events, and documents meet specific criteria as configured by the user.

[c7] 7. The method of claim 6, wherein the specific criteria includes a time and a date.

[c8] 8. The method of claim 1, further comprising displaying a call history to a user that includes information regarding previous and current calls from a caller.

[c9] 9. The method of claim 1, further comprising, in response to receiving a call, initiating a web chat session between at least two devices.

[c10] 10. The method of claim 1, wherein configuration further comprises designating an attendant device to which calls are forwarded under certain circumstances, and designating the attendant device to monitor incoming calls to the TSPS on behalf of the user.

[c11]

11. The method of claim 1, further comprising:
the TSPS receiving a call from a telephone system;
the TSPS determining a user identification (ID) from a called number;
the TSPS using a calling line identification (CLI) number and the user identification to find a handling code associated with the CLI number;
the TSPS using the user ID to find a current status of the user;
the TSPS using the user ID and the CLI number to access data from the contact management system database;
the TSPS using the user ID and the CLI number to access a user profiles database to determine a handling method for the call; and
the TSPS using the handling method, the current status of the user, the data, and the handling code to handle the call.

[c12]

12. The method of claim 11, wherein the data includes contact data and calendar data.

[c13]

13. A communication management system, comprising:
at least one user computer, including a storage device having standard contact management software stored thereon, including a contact management user interface, and a contact management database;
a telephony service provider system (TSPS) coupled to the at least one user computer through a network, and further coupled to at least one telephone network for receiving voice calls intended for a user of the at least one user computer, wherein the TSPS comprises,
an interface component that communicates with the contact management system;
at least one database that stores:
a user configuration for the user;

calendar information for the user associated with the contact management database;

contact information for the user stored from the contact management database; and

TSPS registration information for the user;

wherein the TSPS receives a voice call for the user and handles the voice call with reference to information in the at least one database, and wherein handling includes routing the call based at least upon contact information related to a caller that placed the call.

[c14] 14. The system of claim 13, further comprising at least one attendant computer operated by an attendant, wherein the at least one attendant computer is coupled to the at least one user computer through a network, wherein the user configuration specifies:

that particular voice calls be forwarded to the attendant; and

the attendant has limited shared access to the TSPS, including monitoring and controlling the user's voice calls using the TSPS.

[c15] 15. The system of claim 13, wherein the user configures the TSPS using the contact management user interface, and wherein the user further receives notification of voice calls using the contact management user interface, and responds to the notification in real-time using the contact management user interface.

[c16] 16. The system of claim 15, wherein configuration includes storing a handling code in an unused portion of a data field in the contact management database to direct the TSPS in handling a voice call from a particular caller, and associating a handling method with the handling code in the at least one database of the TSPS.

[c17] 17. The system of claim 13, wherein the TSPS is a one-number system.

[c18] 18. The system of claim 13, wherein the interface component communicates with the contact management system via open application programming interfaces of the contact management system.

[c19] 19. A method for handling incoming communications, comprising:
receiving at least one voice call intended for a recipient;
based on data related to the at least one voice call, accessing data regarding a caller that placed the at least one voice call, wherein the data regarding the caller includes data from a previously configured standard contact management system; and
handling the at least one voice call based on the data regarding the caller, wherein handling includes routing the at least one voice call to a particular destination, and notifying the recipient of the at least one voice call using at least one notification method.

[c20] 20. The method of claim 19, wherein the at least one notification method includes displaying the at least one voice call in a window on a user interface of the contact management system, wherein the window includes buttons that allow the user to:

display information from the contact management database related to the caller;
display a call history that includes information related to past calls and to the at least one voice call; and
transfer the call to at least one destination.

[c21] 21. The method of claim 19, wherein routing includes:
transferring the at least one voice call to a voice message service, wherein the voice message service prompts the caller to leave a message;

transferring the at least one voice call to a previously designated attendant;
transferring the at least one voice call to a previously designated current
user location; and
playing one of at least one prompt that interacts with the caller via
interactive voice response (IVR).

[c22] 22. The method of claim 19, wherein the data from the previously
configured standard contacts management system includes:

a phone number identifying a device that is presumed to be used by the
caller, wherein the phone number occupies a field in a database of
the contact management system; and
a handling code that occupies a field in the database of the contact
management system, wherein the handling code has significance
only for a telephony service provider system (TSPS) in
communication with the contact management system.

[c23] 23. The method of claim 22, further comprising communicating between
the TSPS and the standard contact management system using application
programming interfaces (APIs) of the standard contact management system,
wherein communicating comprises:

storing contact information, including phone numbers and handling codes,
in a contact information database that is directly accessible to the
TSPS; and
receiving user configuration information for the TSPS through a user
interface of the contact management system, including assignment
of handling instructions to handling codes.

[c24] 24. The method of claim 23, wherein communicating further comprises
storing calendar information from the contact management system in a calendar
events database that is directly accessible to the TSPS, and wherein the user

configuration information further includes information regarding handling the at least one voice call based on the calendar information, including whether the at least one voice call is received during a calendared event.

[c25] 25. A computer-readable medium, having stored thereon instructions, which when executed, cause at least one processor to:

receive user input to configure a telephony service provider system (TSPS), wherein configuration includes associating a handling method with each one of two or more call handling codes, wherein the two or more call handling codes correspond to directing the TSPS in handling a call under respective two or more call handling methods;

receive user input to a contact management system associating at least some of multiple contacts stored in a contact management system database with one of the handling codes;

in response to receiving a call, displaying a window that provides information from the contract management system regarding a likely caller associated with the call; and

receive user input when the call is received that directs the TSPS to handle the received call, wherein the TSPS uses data from the contact management system database to handle the received call.

[c26] 26. The computer-readable medium of claim 25, further comprising: routing calls to a previously specified location, including,

a phone number; and

a user computer, including displaying a notification window that includes a caller name, a caller number, and at least one forwarding button the user selects to forward the call to a number.

[c27] 27. The computer-readable medium of claim 26, the displayed window includes an open contact button the user may select to display information about the caller from the contact management system.

[c28] 28. The computer-readable medium of claim 26, further comprising displaying a call history that includes information regarding previous and current calls from a caller.

[c29] 29. The computer-readable medium of claim 26, further comprising, in response to receiving the call, initiating a web chat session between at least two devices.

[c30] 30. The computer-readable medium of claim 25, further comprising designating an attendant device to which received calls are forwarded under certain circumstances, and designating the attendant device to monitor incoming calls to the TSPS on behalf of the user.

[c31] 31. The computer-readable medium of claim 25 wherein the computer-readable medium is a logical node in a computer network receiving the contents.

[c32] 32. The computer-readable medium of claim 25 wherein the computer-readable medium is a computer-readable disk.

[c33] 33. The computer-readable medium of claim 25 wherein the computer-readable medium is a data transmission medium transmitting a generated data signal containing the contents.

[c34] 34. The computer-readable medium of claim 25 wherein the computer-readable medium is a memory of a computer system.

[c35]

35. A call handling system, comprising:
a standard contact management application, wherein the standard contact management application includes a database of contact information, wherein the contact information includes names of contacts and telephone numbers associated with the contacts, and wherein the standard contact management application further includes a set of published application program interfaces (APIs) for accessing functionality in the standard contact management application;
a call management application, wherein the call management application is configured to
receive information regarding an incoming call, including an originating phone number,
employ at least some of the set of APIs in the standard contact management application to provide at least a name from the contact information in the database based on the originating phone number; and
provide at least two different call handling options to the user for handling the incoming call.

[c36]

36. A computer-implemented method for use with a standard contact management application, wherein the standard contact management application stores and displays contact information, the method comprising:
receiving an incoming voice telephone call, wherein the incoming call includes information associated with an originating telephone number;
accessing one of many contact records in the standard contact management application based on the information associated with an originating telephone number; and

automatically causing at least some information associated with the one contact record to be displayed for a user.

Q. And that's the only way that the information is displayed to the user?